



# CaptairStore 531 Midcap

Ductless filtering chemical storage cabinet

## Instructions & User's Manual



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## General

**By choosing CaptairStore Midcap ductless filtration chemical storage cabinets you have chosen an efficient and responsible way to ensure safety.**

Your storage CaptairStore Midcap is the ideal to accommodate respiratory protection of users and environmental protection with a unique filtered air recycling system in the laboratory. This is made possible by the use of very highly-effective molecular and HEPA H13 filters which trap molecules and toxic particles. This filtering process makes it possible to blow purified air out of the filter, free from chemical pollution. The Erlab exclusive filtration technology can be adapted according to the stored chemicals.

## Safety notices

The effectiveness of your device is directly dependent upon it being used correctly and monitored by its users. Your laboratory may also benefit from ergonomic, economic and ecological advantages provided by the Captair Smart chemical storage cabinet throughout its life cycle.

The **Erlab Safety Program (ESP)\*** was set up to guarantee your safety. We would remind you that it is important to have the safety parameters validated before using the device for the first time and whenever it is used for a different application.

\* [erlab.evaliquiest.com](http://erlab.evaliquiest.com)

The equipment provided is not intended to be used in an explosive atmosphere.

The filters delivered with this device must be removed from their packaging and positioned correctly; they must also be suitable for the type of chemicals being handled in order to guarantee user safety.

Erlab recommends that filter breakthrough tests are regularly carried out.

New filters must be stored in their packaging, kept in a dry location and laid flat. (see recommendations for storing and using the filters).

Erlab recommends keeping a logbook which is specific to the device and shows the chemical agents handled, how often they are used and the maintenance operations carried out on it.

## Organization of your storage

Prior to handling or storing a chemical product, it is mandatory to consult your label; this label provides information on the danger associated with chemical substances as well as the basic principles of protection during handling and storage.

This information includes pictograms, some special instructions are reproduced below:



### EXPLOSIVE

Contact with an energy source (flame) or an incompatible product may cause an explosion.  
Example: Ammonium Nitrate (responsible for the nitrogen fertilizer explosion in Toulouse in 2001)



### COMBUSTIVE

Substance which will cause a fire on contact with a combustible product  
Example: hydrogen peroxide



### CORROSIVE

Product which may attack tissues or certain materials (glass, metal, etc.)  
Example: Acids (Hydrochloric Acid) or Concentrated Bases (Soda)



### SENSITIZING

Substance dangerous for health  
Example: Formaldehyde, Benzène



### DANGEROUS FOR THE ENVIRONMENT

Substance which when it is dispersed into the environment may cause damage to the fauna or flora.  
Example: Hydrocarbons



### TOXIC / IRRITANT

Substance which may cause a health risk.  
Example: Citric Acid



### GAS BOTTLE UNDER PRESSURE

Product which can cause an explosion or burns  
Example: Hydrogen



### TOXIC

Substance presenting serious health risks (Carcinogenic, Mutagenic or Toxic for reproduction)  
Example: HCN hydrocyanic acid



### FLAMMABLE

Contact with an energy source (flame) or an incompatible product (combustive) may cause a fire.  
Example: Methanol

Before inserting any new product into the cabinet, the user must check its chemical compatibility with the products it already contains. For example, in the category of corrosive products, it is necessary to distinguish between Acids and Bases. In every case, Acids and Bases must be separated: the reaction of a strong acid with a strong base is highly exothermic (releases heat), which may cause serious accidents.

We give a non-exhaustive list below of some examples of known chemical incompatibilities:

- Do not store acids and bases together.
- Do not store oxidants and reductants together.
- Do not store combustible products and flammable products together.
- Do not store corrosive products and flammable products together.

In a cabinet, glass bottles containing liquids should be stored as low as possible so as to limit the height of a spill if they are accidentally turned over.

The storage cabinets are intended to contain small quantities of products necessary for daily work.

In order to facilitate the organization of your storage, the eValiQuest Cabinets tool will allow you to visualize the storage in line with your stored products. [evaliquest.erlab.com](https://evaliquest.erlab.com)

## IMPORTANT :

Cabinets are not capable of resisting consequences of a fire in the laboratory.

Therefore, any storage of flammable products in this type of cabinet is under the sole responsibility of the user.

Cabinet must be used indoors, at a vertical position on its carrying feet.

Use or storage temperature: 15 to 30° C

Maximum rate of humidity: 75 %

Storage: noxious and odorous chemical products.

## The Erlab Guarantee



### Erlab Warranty Information:

Erlab will offer a free Lifetime Warranty for all products sold. The Lifetime Warranty is valid on all Captair products with regards to mechanical parts as long as genuine Erlab parts and filters are used in compliance with the Captair Brand specifications, and replacement of the filters and sensors occur as recommended through the ValiQuest completion for each product sold.

Consumable items (including filters) and Captair Pyramid remain under warranty only until the first use. Erlab Inc. is the Sole US Distributor of Captair products and is not responsible for damage that occurs as a result of failure to follow instructions that are included with the original product.

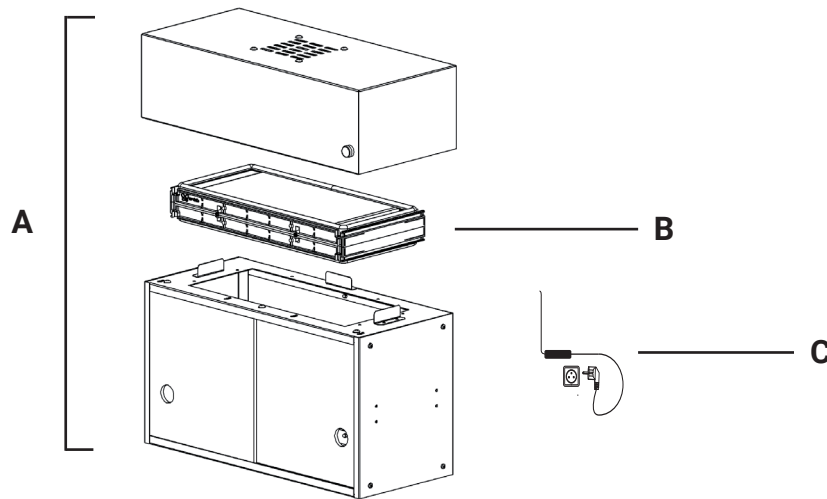
This Limited Lifetime Warranty does not apply from the result of an accident, misuse, abuse, contamination, modification, normal wear and tear or other external causes. This section constitutes Clients sole and exclusive remedy and Erlab Inc.'s sole and exclusive responsibility with respect to any alleged breach of this limited warranty. A one-year warranty is offered on the enclosure of the unit.

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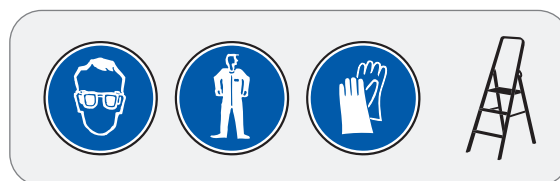


## Underbench storage cabinet sliding doors



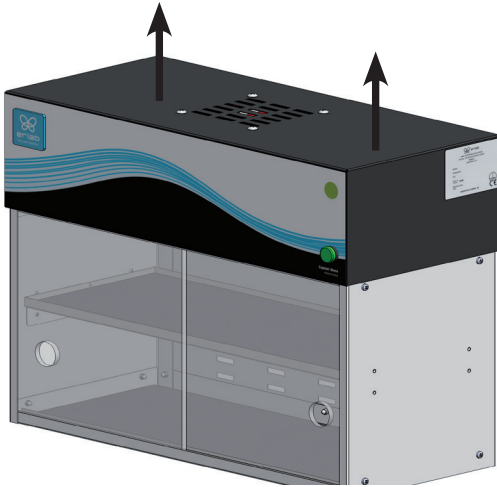
## Parts list

<b>A</b>	Underbench storage cabinet		x1	AB062
<b>B</b>	Filter		x1	H12011101 (AS) H12011201 (BE) H12011301 (F) H12011401 (K)
<b>C</b>	External power supply		x1	EU = PIDEL076 + PIDEL8651 USA = PIDEL080 GB = PIDEL090 CH = PIDEL106



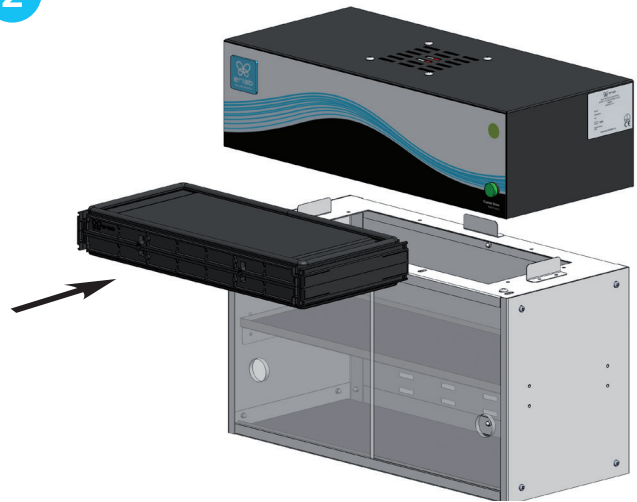
## Assembling the unit

1



Lift the protective cover up

2



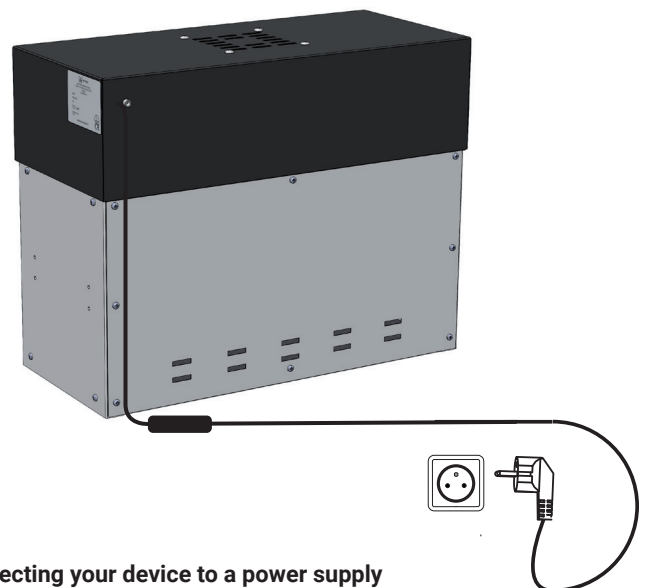
Insert the carbon filter at the bottom of the storage and place it

3



Replace the protective cover

4

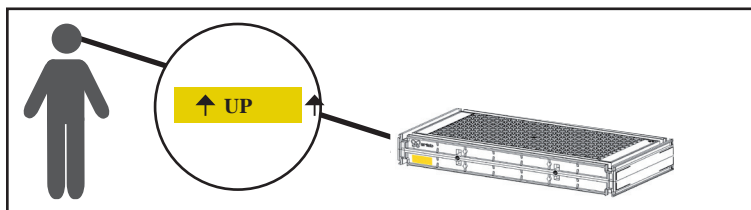


Connecting your device to a power supply



## Replacing the filters

Each molecular filter is labeled as follows.



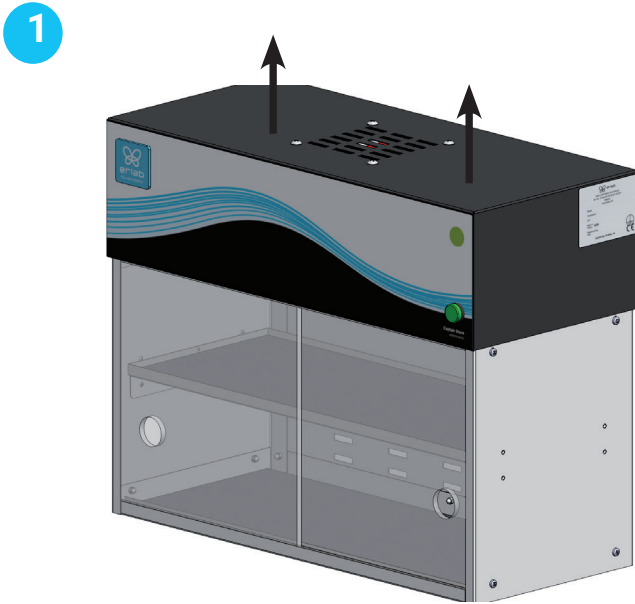
Please observe these markings.

The table below summarizes the different types of carbon filters that Erlab® offers along with their fields of application.

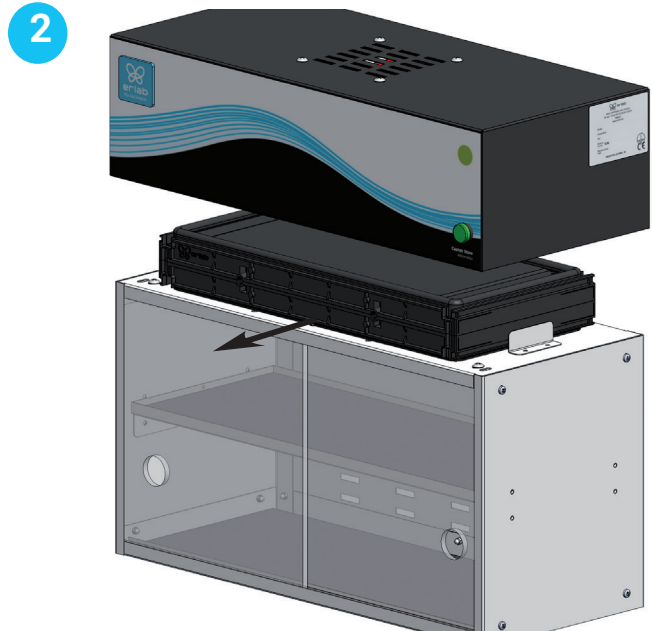
<b>Type AS</b>	For organic vapors
<b>Type BE</b>	For acid vapors
<b>Type K</b>	For ammonia vapors
<b>Type F</b>	For formaldehyde vapors

## Filter Replacement Procedure

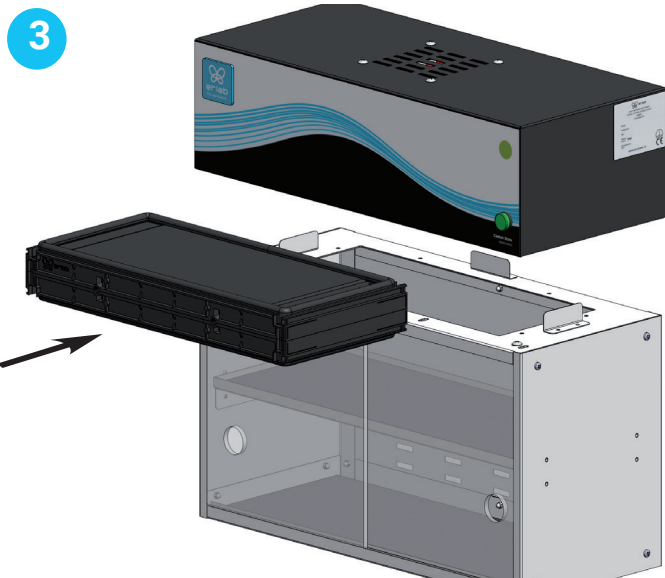
For these operations, we strongly recommended that the user or maintenance technician wear the necessary safety equipment, including: safety glasses, lab coat and gloves.



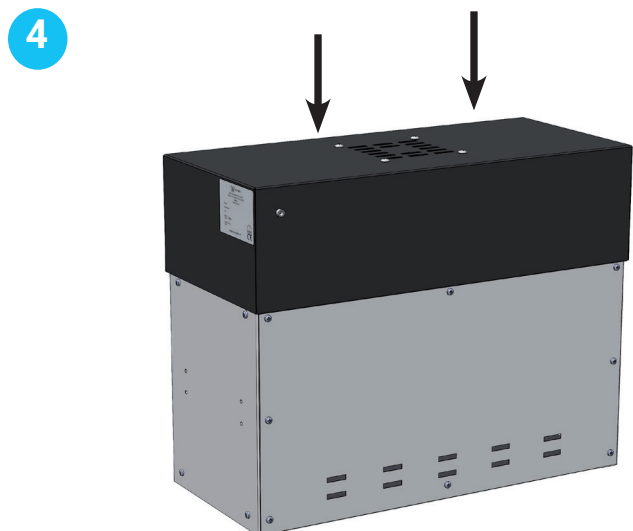
Unplug the power source and lift the protective cover



Remove the carbon filter from the cabinet



Insert the new carbon filter in the bottom of the cabinet and place it



Replace the protective cover and reconnect the appliance to the mains

## Recommendations for the use of filters

**We recommend replacing the filter annually (if used 24/7).**

**ERLAB** offers 3-point validation of your handling operations based on a scientific analysis carried out by its laboratory specialists via the global **Erlab Safety Program (E.S.P)** which includes the Valiquest questionnaire :

- Organization of the storage
- Type(s) of filter(s) to use and filtration column configuration (if required)
- Predicted service life of the activated carbon molecular filters

How does the E.S.P service work?

- The customer registers these chemicals by logging on [www.evaliquest.erlab.com](http://www.evaliquest.erlab.com)
- The Erlab laboratory specialists analyze the questionnaire and issue a Valipass certificate

The Valipass certificate is affixed to the new devices at the factory. If the chemical processes in the hood change, a new valiquest is completed and is sent by email after revalidation.

The certificate contains the following: a list of the products handled in the fume hood, the type of filter required for these chemicals, the serial number, the life of the filter, the traceability information used to track the use of the device and the methods of detecting filter failure of the molecular filter.

To ensure their safety, we invite users who have not had registered their products in the **eValiQuest** interface or whose device is not covered by a **Valipass** usage certificate, to contact [ERLAB](http://ERLAB) or their usual distributor to arrange a new usage validation for the device in question..

**Failing that and/or in the absence of information regarding device usage:**

ERLAB is unable to provide any guidance as to the predicted service life of the filter(s).

**In such cases, we strongly recommend:**

- **Replacement of molecular filters at least every 12 months and implementation of a regular filter fault monitoring protocol.**

## Shelves : maximum permissible mass (kg)

Shelves
5 kg

## Cleaning and maintenance

### Mechanical item checks

#### Acrylic Parts:

These parts must be clean; white streaks or spatters indicate rather heavy use of acid (hydrochloric acid) or products handled at a high temperature. Ensuring the transparency of the walls is a part of regular maintenance for the enclosure.

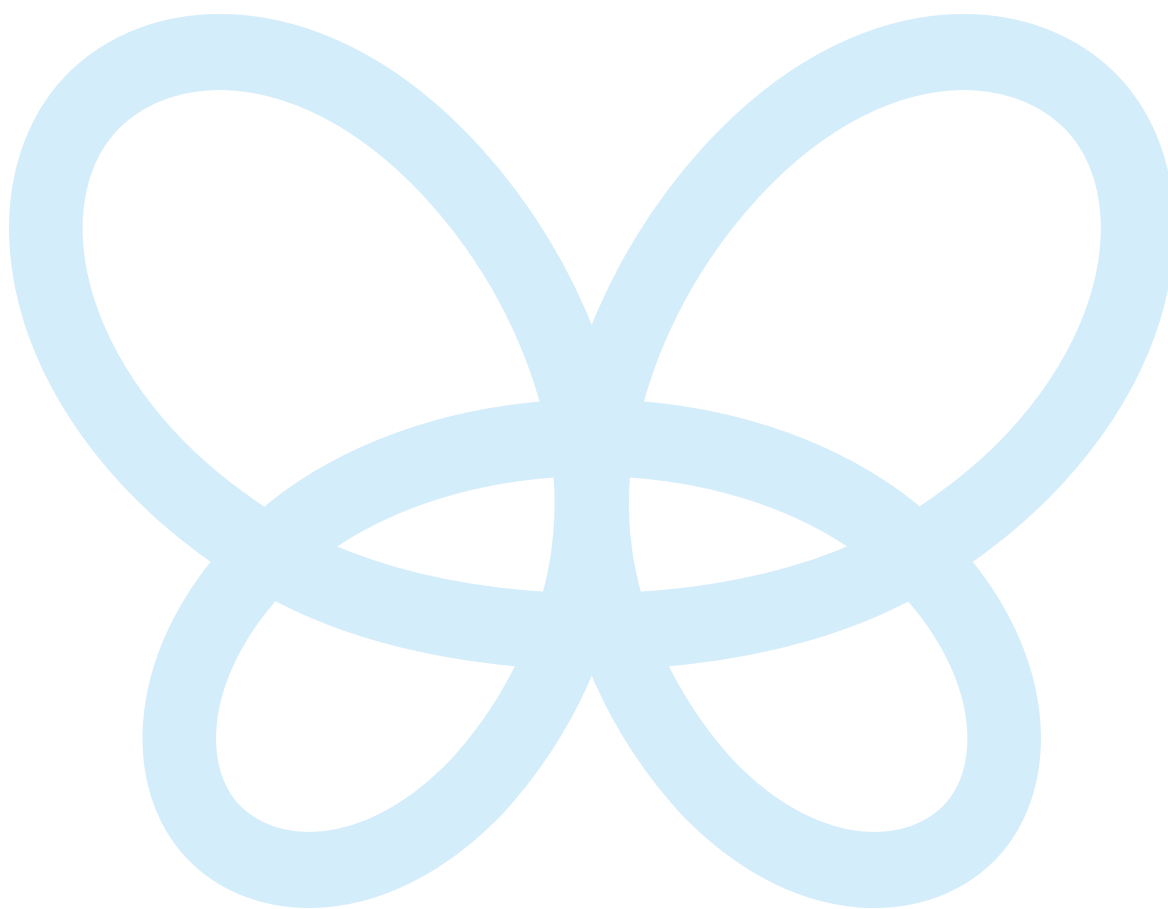
#### Cleaning the appliance:

Cleaning the dividers is mandatory and must be done regularly. It may be done in several ways:

- With soapy water followed by rinsing with clear water and drying with a soft; nonabrasive; B32 absorbent paper towel,
- Or with a commercial PH neutral neutralizing product followed by drying with a soft; non-abrasive; absorbent paper towel,
- Or with a commercial glass cleaning product.

#### Coated Metallic Parts:

- They must be inspected and free from any traces of corrosion.
- Check that no liquid stagnates in the shelves with a retention tank.
- Clean retention tanks if necessary





# About Erlab

The Erlab Research and Development laboratory

Since 1968, **Erlab** has been a specialist, inventor and world leader in **ductless, zero-emission filtering fume hoods for laboratories** to provide total safety in chemical handling.

## 1 Erlab filtration

We provide technologies to protect laboratory staff from inhaling chemicals. This is made possible thanks to our **Research and Development (R&D) department**, which has continuously improved our filtration technology **for more than 50 years**. That's why, in 2009, we invented the **ERLAB ABOVE** label for tried and tested filtration technology.

## 2 The AFNOR NF X 15-211: 2009 standard

Erlab's filtration technology conforms to the **NF X 15-211: 2009 standard**, the industry's most demanding standard for molecular filtration, developed by a committee of independent scientists and specialized manufacturers.

**This text imposes performance criteria linked to:**

- Filtration efficiency
- Containment efficiency
- Air face velocity
- Documentation: **chemical listing**

## 3 The ESP program

A set of three services included with the purchase of each device designed to ensure your safety.



**eValiQuest**

Risk analysis – Determination of protection needs – Determination of ergonomic needs.



**ValiPass**

Certified installation – Total safety for handling.



**ValiGuard**

Ongoing monitoring – Preventative and maintenance inspections – Device reconfiguration based on protection needs – Development of handling.

## 4 Flex technology

The combination of molecular and particulate filtration technologies allows a single device to meet laboratories' protection needs. This innovation from Erlab's R&D department offers unprecedented **flexibility, versatility and value**. A single device can be reconfigured over time and easily reassigned to other applications.

## 5 Smart technology

Smart technology is a **simple and innovative** means of communication that improves safety. This technology uses a light and sound signal to indicate the user's level of protection. The advantages of the technology are:

- 1/ Light pulsation:** Real-time communication via LED light pulses intuitively alerts the user to the device's operating status.
- 2/ Simplicity:** One-touch activation.
- 3/ Detection system:** The exclusive detection system continuously monitors filtration performance.
- 4/ Built-in monitoring:** This service provides direct access to the **status, settings and history** of your device.

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